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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/057,229	01/25/2002	Durward S. Benham JR.	170-99-X44	3036

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EXAMINER

RODRIGUEZ, WILLIAM H

ART UNIT	PAPER NUMBER
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3746

3

DATE MAILED: 06/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/057,229

Applicant(s)

BENHAM ET AL.

Examiner

William H. Rodriguez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9 and 13-20 is/are rejected.
- 7) ☒ Claim(s) 3,8 and 10-12 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Claim Objections

1. Claim 20 is objected to because of the following informalities: It is believed that the word "steam" in lines 7 and 8 should be replaced by the word --stream--. Appropriate correction is required.
2. Claim 20 recites the limitation "the mixture" in line 6. There is insufficient antecedent basis for this limitation in the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 102

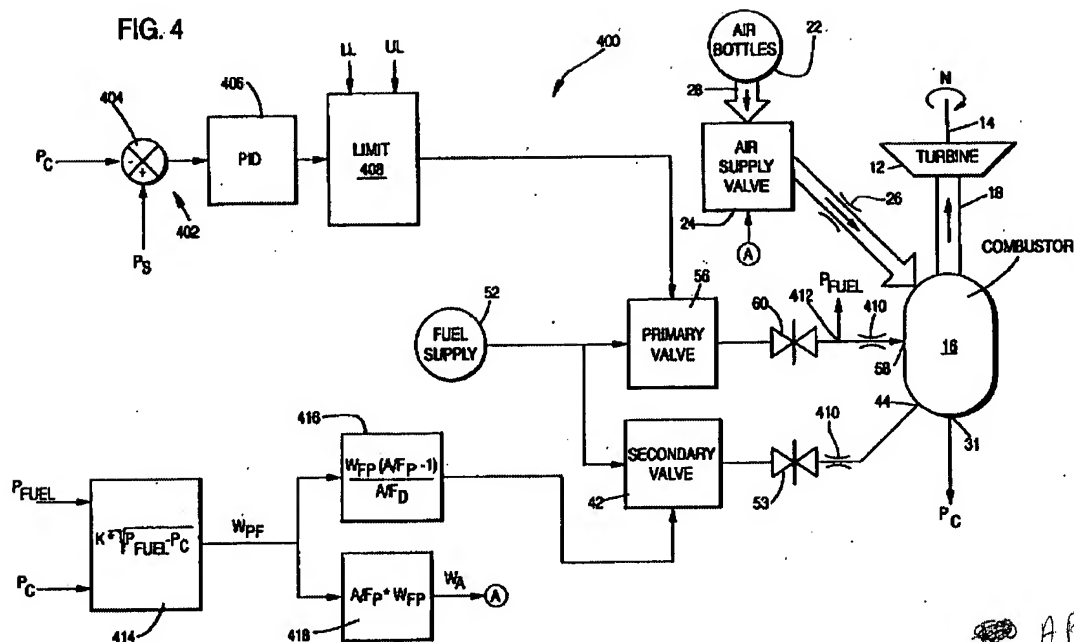
3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 2, 6, 7, 9, 15, 16, (17), (19) and (20) are rejected under 35 U.S.C. 102(b) as being anticipated by **Lampe et al.** (U.S patent No. 5,097,659).

FIG. 4



APU Attached to
Turbine module

5. With respect to claim 1, **Lampe et al.** teach an apparatus for generating auxiliary and emergency power. This apparatus comprises a source of pressurized air 22; a source of jet fuel 52; a turbine 12; an airflow passageway joining the source of pressurized air 22 to the turbine 12; a fuel flow passage joining the source of jet fuel 52 to the turbine 12; and a separate valve assembly 24, 26, 56, 42, 60, 53, 410 located in each flow passageway for controlling the flow of compressed air and jet fuel into the turbine. See particularly **Figure 4**; column 1 lines 7-8; and column 6 lines 10-12 of Lampe.
6. With respect to claim 2, **Lampe et al.** teach that the source of compressed air 22 comprises at least one high-pressure storage vessel. See particularly **Figure 4** and column 5 lines 20-22 of Lampe.
7. With respect to claim 6, **Lampe et al.** teach that the valve assembly located in the fuel flow passageway comprises a modulating fuel control valve 56. See particularly **Figure 4** of Lampe.

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8. With respect to claim 7, **Lampe et al.** teach that the valve assembly located in the fuel flow passageway comprises a fixed orifice valve 410. See particularly **Figure 4** of Lampe.

9. With respect to claim 9, **Lampe et al.** teach an apparatus for generating auxiliary and emergency power. This apparatus comprises a source of pressurized air comprising at least one storage vessel 22; a source of jet fuel comprising a fuel tank 52; a turbine 12; an airflow passageway joining the source of pressurized air 22 to the turbine 12; a fuel flow passage joining the source of jet fuel 52 to the turbine 12; and a separate valve assembly 24, 26, 56, 42, 60, 53, 410 located in each flow passageway for controlling the flow of compressed air and jet fuel into the turbine. See particularly **Figure 4**; column 1 lines 7-8; column 5 lines 20-22; and column 6 lines 10-12 of Lampe.

10. With respect to claim 15, **Lampe et al.** teach that the valve assembly located in the fuel flow passageway comprises a modulating fuel control valve 56. See particularly **Figure 4** of Lampe.

11. With respect to claim 16, **Lampe et al.** teach that the valve assembly located in the fuel flow passageway comprises a fixed orifice valve 410. See particularly **Figure 4** of Lampe.

12. With respect to claim 17, **Lampe et al.** teach an apparatus for generating auxiliary and emergency power. This apparatus comprises a source of pressurized air comprising at least one storage vessel 22; a source of jet fuel comprising a fuel tank 52; a turbine 12; an airflow passageway joining the source of pressurized air 22 to the turbine 12; a fuel flow passage joining the source of jet fuel 52 to the turbine 12; and a modulating valve assembly 24, 26 located in the air flow passageway and a control valve 56 located in the fuel flow passageway for controlling

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the flow of compressed air and jet fuel into the turbine. See particularly **Figure 4**; column 1 lines 7-8; column 5 lines 20-22; and column 6 lines 10-12 of Lampe.

13. With respect to claim 19, **Lampe et al.** teach that the control valve comprises a fixed orifice valve 410 located between the fuel tank 52 and the turbine 12. See particularly **Figure 4** of Lampe.

14. With respect to claim 20, the operation of the prior art apparatus of **Lampe et al.** will inherently perform the claimed method.

15. Claims 1, 2, 4, 5, 7, 9, 13, 14 and 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by **Lampe et al.** (U.S patent No. 5,031,398).

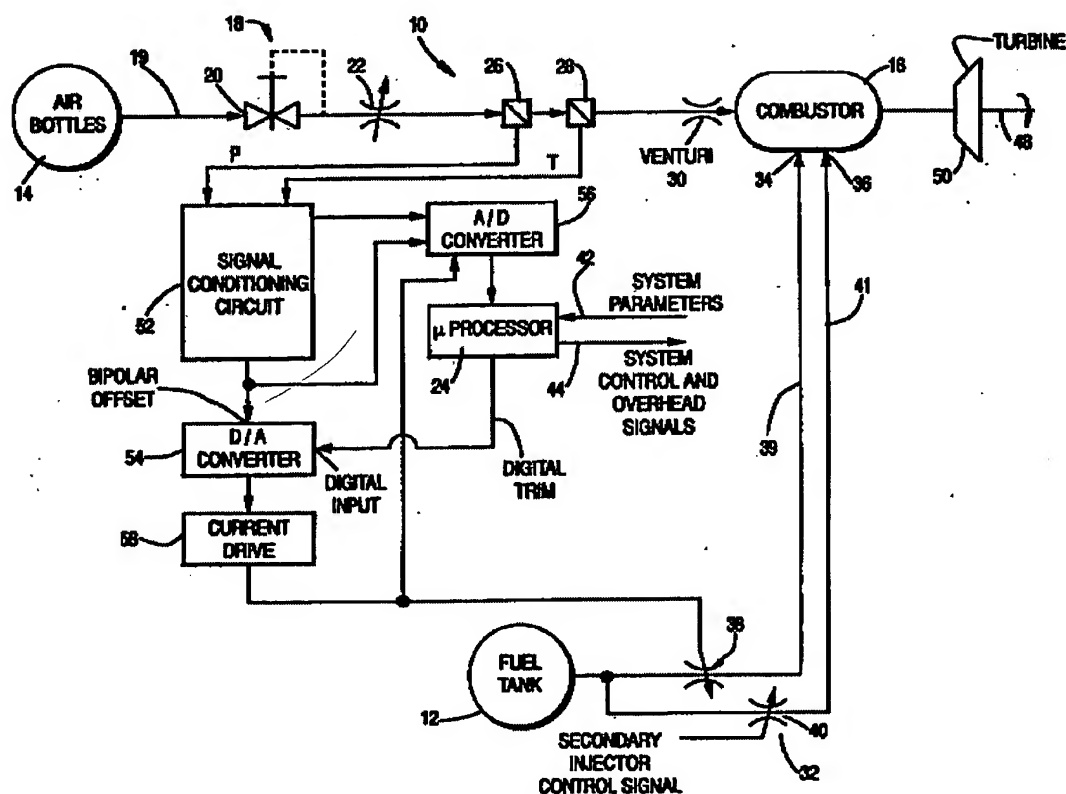


Figure 1.

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16. With respect to claim 1, **Lampe et al.** teach an apparatus for generating auxiliary and emergency power. This apparatus comprises a source of pressurized air 14; a source of jet fuel 12; a turbine 50; an airflow passageway joining the source of pressurized air 14 to the turbine 50; a fuel flow passage joining the source of jet fuel 12 to the turbine 50; and a separate valve assembly 20, 22, 38, 40 located in each flow passageway for controlling the flow of compressed air and jet fuel into the turbine. See particularly **Figure 1**; column 1 lines 66 to column 2 lines 1-2 of Lampe.

17. With respect to claim 2, **Lampe et al.** teach that the source of compressed air 14 comprises at least one high-pressure storage vessel. See particularly **Figure 1** and column 4 lines 1-3 of Lampe.

18. With respect to claim 4, **Lampe et al.** teach that the valve assembly located in the air flow passageway comprises a modulating air control valve 22 and a separate regulator and shutoff valve 20 located between the air control valve 22 and the source of pressurized air 14. See particularly **Figure 1** of Lampe.

19. With respect to claim 5, **Lampe et al.** teach that the valve assembly located in the air flow passageway comprises a fixed orifice valve 30 and a separate regulator and shutoff valve 20 located between the fixed orifice valve 30 and the source of pressurized air 14. See particularly **Figure 1** of Lampe.

20. With respect to claim 7, **Lampe et al.** teach that the valve assembly located in the fuel flow passageway comprises a fixed orifice valve 38. See particularly **Figure 1** of Lampe.

21. With respect to claim 9, **Lampe et al.** teach an apparatus for generating auxiliary and emergency power. This apparatus comprises a source of pressurized air comprising at least one

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storage vessel 14; a source of jet fuel comprising a fuel tank 12; a turbine 50; an airflow passageway joining the source of pressurized air 14 to the turbine 50; a fuel flow passage joining the source of jet fuel 12 to the turbine 50; and a separate valve assembly 20, 22, 38, 40 located in each flow passageway for controlling the flow of compressed air and jet fuel into the turbine. See particularly **Figure 1**; column 1 lines 66 to column 2 lines 1-2 of Lampe.

22. With respect to claim 13, **Lampe et al.** teach that the valve assembly located in the air flow passageway comprises a modulating air control valve 22 and a separate regulator and shutoff valve 20 located between the air control valve 22 and the source of pressurized air 14. See particularly **Figure 1** of Lampe.

23. With respect to claim 14 **Lampe et al.** teach that the valve assembly located in the air flow passageway comprises a fixed orifice valve 30 and a separate regulator and shutoff valve 20 located between the fixed orifice valve 30 and the source of pressurized air 14. See particularly **Figure 1** of Lampe.

24. With respect to claim 16, **Lampe et al.** teach that the valve assembly located in the fuel flow passageway comprises a fixed orifice valve 38. See particularly **Figure 1** of Lampe.

25. With respect to claim 17, **Lampe et al.** teach an apparatus for generating auxiliary and emergency power. This apparatus comprises a source of pressurized air comprising at least one storage vessel 14; a source of jet fuel comprising a fuel tank 12; a turbine 50; an airflow passageway joining the source of pressurized air 14 to the turbine 50; a fuel flow passage joining the source of jet fuel 12 to the turbine 50; and modulating valve assembly 20, 22, 30 located in the air flow passageway and a control valve 38 located in the fuel flow passageway for

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controlling the flow of compressed air and jet fuel into the turbine 50. See particularly **Figure 1**; column 1 lines 66 to column 2 lines 1-2 of Lampe.

26. With respect to claim 18, **Lampe et al.** teach that the valve assembly located in the air flow passageway comprises a modulating air control valve 22 and a separate regulator and shutoff valve 20 located between the air control valve 22 and the source of pressurized air 14. See particularly **Figure 1** of Lampe.

27. With respect to claim 19, **Lampe et al.** teach that the valve assembly located in the fuel flow passageway comprises a fixed orifice valve 38. See particularly **Figure 1** of Lampe.

28. With respect to claim 20, the operation of the prior art apparatus of **Lampe et al.** will inherently perform the claimed method.

Allowable Subject Matter

29. Claims 3, 8, 10, 11, 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Contact information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Rodriguez whose telephone number is 703-605-1140. The examiner can normally be reached on Monday-Friday 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy S. Thorpe can be reached on 703-308-0102. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9302 for regular communications and 703-872-9303 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0861.

W.R

W.R
May 28, 2003


CHARLES G. FREAY
PRIMARY EXAMINER